V0 Hunt

Bruce Baller

3/18/04

Why & How

- Nagoya has located several V0's in emulsion
- The standard US decay search code can't do this
  - Cobbled together some code to confirm Nagoya results

- Modified primary vertex search code to reduce background
  - Require "straight tracks" with nseg > 2
    - US fit angle – DS fit angle < 5 mrad
  - Allow <2 missing plates
  - Require vertex IP < 2 micron
  - Require angle (θ) between 2ndry & primary vertex < 0.2
  - Require average angle of 2ndry tracks within 100 mrad of θ
  - Visual scan candidates – check for match in SFT
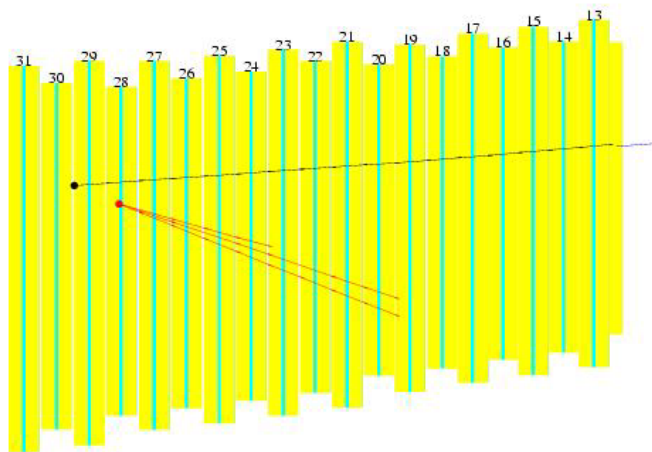
Results so far

- Confirmed 2 Nagoya charm events
- Still scanning events
- Found a 3(?) prong curiosity in 3121_03060
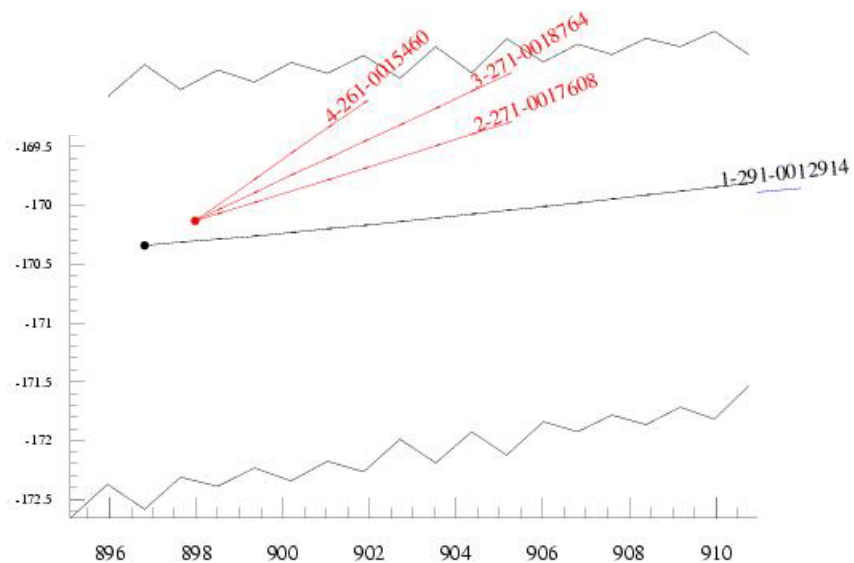
E872 Run= 3121 Event= 3060 Wght=   1.0

U View

trk	nhtnsegnomvtx			
1-291-0012914	13	18	2.2	1
2-271-0017608	8	7		2
3-271-0018764	9	9		2
4-261-0015460	0	4		2

E872 Run= 3121 Event= 3060 Wght=   1.0

V View

trk	nhtnsegnomvtx			
1-291-0012914	13	18	2.2	1
2-271-0017608	8	7		2
3-271-0018764	9	9		2
4-261-0015460	0	4		2

E872 Run= 3121 Event= 3060 Wght=   1.0

V View

Tracks 3,4 not seen in SFT